

Software Development Life Cycle (SDLC) Policy (4300-0003) Checklists

November 5, 2013



Software Development Lifecycle (SDLC) Phase 4: Accessibility Checklist

Reference Documentation: Applications need to be delivered and compliant with State accessibility guidelines at <http://utah.gov/accessibility.html> and [Utah Web Standards and Guidelines: Part 4.0, Accessibility](#)

- ✓ **Straightforward Design** – Use a simple information architecture, organized navigation and reliable headings throughout. Provide consistency to the user and an easy way to navigate back to the home page regardless of location.
- ✓ **Images With Alternative Text** – Provide ALT tag text for further detail for an image or destination of a hyperlinked image. Provide a description of graphics for people who have images turned off in their browser.
- ✓ **Relative Font Sizing** – Provide options for users to modify font size of the website to small, medium, or large.
- ✓ **The Navigation** – Use lists with Main navigation. Lists make it easier for screen readers to read down the list without having to sort through unnecessary code.¹
- ✓ **Style Sheets** – Use Cascading Style Sheets (CSS) to centralize the style information for the website. Using CSS allows for greater flexibility when a style change is needed to accommodate a specific disability.
- ✓ **Tables** – Use headers and scope definitions.
- ✓ **Forms** – Define labels for form fields and use attributes as appropriate.
- ✓ **Contrast** – Avoid using insufficient color or contrast with text or icons.
- ✓ **Layout** – Designs should use a flexible layout, built to optimize viewing for the majority of visitors. Layout designs should be responsive and accommodate any screen resolution, mobile or tablet device.
- ✓ **Multimedia** – Link transcripts of audio and video description with the file. Provide videos using an HTML5 player allowing media to be viewed on iPhone and iPad and similar mobile devices.
- ✓ **Hypertext Links** – Text is specifically chosen to make sense when read out of context, so all users know where they are going when they select a link.

- ✓ **Scripts and AJAX** – Alternative methods for searching or alternative content are provided in case active features are inaccessible or unsupported by a users browser. When JavaScript is not available, this is automatically detected and the proper non-JavaScript version of the site is utilized.
- ✓ **Testing Accessibility and Validation** – Use Wave at <http://wave.webaim.org> and AChecker at <http://achecker.ca/checker/index.php> as consistent accessibility testing platforms. Validate design work using tools, checklists, and guidelines at <http://www.w3.org/TR/WCAG>. Test in multiple browsers.



Software Development Lifecycle (SDLC)

Phase 4: Privacy Checklist

Reference Documentation: Application implementation and data collection need to be compliant with State Privacy Policies at <http://www.utah.gov/privacypolicy.html> and

- ✓ Do not require users to provide personally identifiable information to visit or download information from State Web sites.
- ✓ Give Users the opportunity to opt in to make personally identifiable information available to the State for specialized services. Do not routinely collect such information from users.
- ✓ Government agencies may request personally identifiable information from users in order to perform requested specialized services. Such information will not be disclosed to third parties for commercial purposes except as permitted by law.
- ✓ If personally identifiable information is collected, specify how the user may review and correct that information.
- ✓ Provide assurance to the user regarding the data security provided for any required personally identifiable information.
- ✓ Except as otherwise permitted by law, do not collect and use or disclose the personally identifiable information of a child under the age of 13.



Software Development Lifecycle (SDLC)

Phase 4: Web Standards Checklist

Reference Documentation: Web implementation of applications need to be compliant with 4300-0001-1 [Web Standards and Guidelines](#); and associated design documentation.

- ✓ Use approved State Header on Agency Websites.

NON-SECURE HEADER

Javascript Embed:

<http://www.utah.gov/nav/fluidheader.js>

<http://www.utah.gov/nav/header.js>

<http://www.utah.gov/nav/650header.js>

Use example: `<script language="javascript" src="http://www.utah.gov/nav/fluidheader.js" type="text/javascript"></script>`

Java or Server-Side Include:

<http://www.utah.gov/nav/fluidheader-include.txt>

<http://www.utah.gov/nav/header-include.txt>

<http://www.utah.gov/nav/650header-include.txt>

SECURE HEADER

Javascript Embed:

<https://secure.utah.gov/nav/fluidheader.js>

<https://secure.utah.gov/nav/header.js>

<https://secure.utah.gov/nav/650header.js>

Use example: `<script language="javascript" src="https://secure.utah.gov/nav/fluidheader.js" type="text/javascript"></script>`

Java or Server-Side Include:

<https://secure.utah.gov/nav/fluidheader-include.txt>

<https://secure.utah.gov/nav/header-include.txt>

<https://secure.utah.gov/nav/650header-include.txt>

- ✓ Use the approved State Footer on Agency Websites.

FOOTERS:

<http://utah.gov/nav/footer.js>

<https://secure.utah.gov/nav/footer.js>

<http://utah.gov/nav/footer.js>

<https://secure.utah.gov/nav/footer.js>

<http://utah.gov/nav/footer-include.txt>

<https://secure.utah.gov/nav/footer-include.txt>

<http://utah.gov/nav/fluidfooter-include.txt>
<https://secure.utah.gov/nav/fluidfooter-include.txt>

- ✓ Use the required utah.gov domain for Agency Websites. Utah Administrative Rule R895-4. Sub-Domain Naming Conventions for Executive Branch Agencies explains the value of using “utah.gov.” Exceptions must be approved by the CIO.
- ✓ Ensure that Agency Websites are not dependent on a particular browser or computing platform. Currently released versions of major browsers, over a two year period, should be supported. Sites should be functional on desktops, laptops, and other mobile devices.
- ✓ Avoid the use of plugins (e.g. Flash, SilverLight, etc.) that are not supported across widely used computing platforms including mobile devices.
- ✓ Use responsive / adaptive design so Agency Websites are usable on mobile devices.
- ✓ Test Agency Websites for accessibility. See the Phase 4 Accessibility Checklist.
- ✓ Use the approved Utah GovPay for processing financial transactions. See the developers manual link at (<https://secure.utah.gov/utahinteractive/solutions-gov-pay.html>) Exceptions must be approved by the State Division of Finance.



Software Development Lifecycle (SDLC)

Phase 4: Mobility and Usability Checklist

Reference Documentation: Applications need to be deployable in any major browser. Applications need to be responsive and usable on desktop and mobile devices and consistent with the Utah [Mobile Strategy and Mobile Platform Design Guidelines](#).

- ✓ Compatibility testing – Test against different platform types (iOS, Android, phone, tablet)
- ✓ Browser compatibility testing – Test against major supported browser versions on mobile platforms



Software Development Lifecycle (SDLC)

Phase 4: Security Checklist

Reference Documentation: Applications must be deployed within a secure hosting environment, and be compliant with the State [Security Policy](#).

- ✓ Consult with your Campus Security Professional during project initiation for the appropriate review of the security requirements, testing and code review.
- ✓ The data classification procedure should be followed to appropriately classify the system's data and conduct a security risk assessment.
- ✓ The data trustee, data steward and data users should be identified.
- ✓ The Agencies COOP plan should be updated to reflect new/changed systems.



Software Development Lifecycle (SDLC)

Phase 5: Mobile Device Management Checklist

Reference Documentation: (Insert References)

- ✓ Provide Application name
- ✓ Provide version name (1.0.0...etc)
- ✓ Category (business, education . etc)
- ✓ Minimum OS
- ✓ Provide a description, keywords, support email and support phone number.
- ✓ Provide Mobile and tablet app images for App Catalog
- ✓ Provide an effective and expiration date.
- ✓ Remove app upon un-enrollment (Y/N)



Software Development Lifecycle (SDLC)

Phase 6: Deployment Checklist

Reference Documentation: Applications must be deployed internally using the Enterprise Application Deployment Policy 4000-0001 at <http://dts.utah.gov/employee-dts/policies/4000-0001-enterprise-application-deployment-policy.php>. For external deployment at iOS and Android App stores use the following guidelines:

1. **iOS:** App Store Review Guidelines <https://developer.apple.com/appstore/resources/approval/guidelines.html>
2. **Android:** Core App Quality Guidelines <http://developer.android.com/distribute/googleplay/quality/core.html>

Internal Deployment iOS

Prerequisites

This process starts after the app is completed. To deploy your application please request an administrator account on the on the State iOS Enterprise Development Program. <http://developer.apple.com>. As applicable, please use solid development and deployment processes including version control, build management, and up-to-date deployment strategies.

- ✓ Part 1: Set up Certificates in the iOS Provisioning Portal
- ✓ Part 2: Set up Certificates in Xcode
- ✓ Part 3: Set up Provisioning Profiles in the iOS Provisioning Portal and installing them to Xcode
- ✓ Part 4: Setting up Code Signing in Xcode
- ✓ Provide Mobile Device Management Administrators with the completed (testing included) application package (.ipa & or .apk).
- ✓ Allow at least 7 days for deployment testing.
- ✓ Retain all pervious app revisions, in case of rollback needs.